



USE OF CILIARY NEUROTROPHIC FACTOR

This application is a continuation-in-part of ~~United States Patent Application Serial No. 09/454,380 filed December 3, 1999 which is a continuation of United States Patent Application Serial No. 09/373,834 filed August 13, 1999 which is a~~
 5 ~~continuation of~~ United States Patent Application Serial No. 09/031,693 filed February 27, 1998 which is a continuation -in-part of United States Patent Application Serial No. 08/645,107 filed May 13, 1996, which is a continuation-in-part of 08/308,736 filed September 14, 1994, which issued as United States Patent No. 5,846,935 on December 8, 1998, which is a continuation-in-part of United States
 10 Patent Application Serial No. 07/959,284 filed October 9, 1992 entitled "Ciliary Neurotrophic Factors" which issued as United States Patent No. 5,349,056 on September 20, 1994. Throughout this application, various patent and publications are referenced. Those patents and publications are hereby incorporated by reference
 15 in their entireties, into this application.

BACKGROUND OF THE INVENTION

The present invention relates to ciliary neurotrophic factor (CNTF) and CNTF-
 20 related polypeptides useful for the treatment of neurological diseases, obesity and other diseases or disorders.

CNTF is a protein that is required for the survival of embryonic chick ciliary ganglion neurons in vitro (Manthorpe et al., 1980, J. Neurochem. 34:69-75). The
 25 ciliary ganglion is anatomically located within the orbital cavity, lying between the lateral rectus and the sheath of the optic nerve; it receives parasympathetic nerve fibers from the oculomotor nerve which innervates the ciliary muscles and sphincter pupillae.

30 Over the past decade, a number of biological effects have been ascribed to CNTF in addition to its ability to support the survival of ciliary ganglion neurons. CNTF is

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